

U.S. Environmental Protection Agency, Region 8 1595 Wynkoop Street

Denver, CO 80202-1129



Colorado Department of **Health & Environment**

4300 Cherry Creek Drive South Denver, CO 80246



U.S. Department of the Interior **BLM Colorado State Office** 2850 Youngfield Street Lakewood, CO 80215-7210

January 5, 2015

Ref: 8EPR

Mr. Greg Etter, President Sunnyside Gold Corporation 5075 South Syracuse Street, Suite 800 Denver, Colorado 80237

Re: Implementation of Step 1 of the April 21, 2014, Proposed Game Plan

Dear Mr. Etter:

The U.S. Environmental Protection Agency (EPA), the U.S. Bureau of Land Management (BLM) and the Colorado Department of Public Health and Environment (CDPHE) (hereafter collectively referred to as "the Agencies") appreciate the collaborative efforts of all stakeholders in working to improve water quality in the Animas River. In an effort to continue to work collaboratively, the Agencies request that Sunnyside Gold Corporation (Sunnyside) assist in characterizing the extent, magnitude, causes of contamination, and potential remediation alternatives for the Mayflower Mill and Tailings area and the American Tunnel at Gladstone. We believe this work is consistent with Step 1 of Sunnyside's proposed "Game Plan" spelled out in Sunnyside's April 21, 2014, letter to the Animas River Stakeholders Group (ARSG).

Step 1 of Sunnyside's Game Plan is to "continue to gather the requisite knowledge to understand the problem" and the Agencies agree that additional information is needed to define and understand the sources and causes of the impaired water quality in the Animas River. To date, the ARSG, BLM, U.S. Forest Service and the EPA all have expended substantial efforts and resources in defining the problems in Upper Cement Creek and in the Animas River below gaging station A-68. In addition, the EPA has decided to use its Superfund removal authority and resources to install a flow-control structure (i.e., concrete bulkhead) in the Red & Bonita Mine to reduce mine drainage into Cement Creek. The EPA anticipates completing the design and construction of the bulkhead in 2015. Furthermore, the Agencies are continuing to commit resources to characterize the extent and magnitude of contamination in other parts of the Upper Animas River Watershed. Recent work has included the ongoing ecological risk assessment and the U.S. Geological Survey water quality modeling study using the One-Dimensional Transport w/Equilibrium Chemistry model.

The area above the confluence of the Animas River with Cement Creek is one area where additional investigation is necessary. In particular, more information is needed on the Mayflower Mill and Tailings area and its potential contribution to impaired water quality in the reach of the Animas River between gaging station A-68 and the gaging station at Howardsville. Given Sunnyside's experience with, and knowledge of the Mayflower Mill and Tailings area, the Agencies request that Sunnyside develop a draft Remedial Investigation (RI) work plan for this area for review and discussion, and then implement the agreed upon RI work plan.

Some of the provisions we believe should be included in such an RI work plan are:

1) an in-depth investigation of the historical uses and disposal practices in the Mayflower Mill and Tailings area; 2) groundwater chemistry of the tailings and other on-site sources; 3) groundwater flux and discharge of the tailings with a loading analysis to the Animas River; 4) an evaluation of the cap material and detailed cross-sections of the constructed tailings impoundments; 5) the location of the disposal area for the sludge from the Gladstone water treatment plant; and 6) detailed information including performance data about the reactive barrier wall that Sunnyside constructed at the Mayflower Mill and Tailings area.

In addition, the Agencies request that Sunnyside develop a draft Remedial Investigation and Feasibility Study (RI/FS) work plan for the American Tunnel at Gladstone for review and discussion, and then implement the agreed upon work plan. The purpose of an RI/FS will be to provide the Agencies, as well as other stakeholders, with a comprehensive understanding of the impacts of the American Tunnel on the water quality in Cement Creek and the Animas River at Silverton and possible remedial alternatives.

We believe the work plan for the American Tunnel should include: 1) an in-depth investigation of the tunnel's history and construction; 2) the locations of fractures, faulting and mineralization influenced by the tunnel and the associated mine pool and the effects of these features on groundwater flow and surface water chemistry; 3) groundwater pathways and hydraulic influence of the three bulkheads; and 4) an evaluation of treatment and disposal options capable of mitigating the metal loading from the American Tunnel to adjacent streams and seeps.

Both the Mayflower Mill and Tailings area RI work plan and the American Tunnel RI/FS work plan should also include a project management plan addressing schedules, roles and responsibilities, and a review process that includes local stakeholders' input. All work plans must include appropriate quality assurance project plans that comply with EPA requirements for all data collection activities.

We would like to hear from you by the end of February, 2015 in order to allow sufficient time to draft and finalize plans for gathering data during the 2015 field season.

Please feel free to contact Martin Hestmark if you would like to meet and discuss this request. Mr. Hestmark can be reached at 303-312-6776.

Sincerely,

Martin Hestmark

Assistant Regional Administrator for Ecosystem Protection and Remediation

U.S. Environmental Protection Agency

Ruth Welch

Colorado State Director

U.S. Bureau of Land Management

Gary W. Baughman P.E.

Director Hazardous Materials and Waste

Management Division

Colorado Department of Public Health and

Environment

ce: San Juan County Board of Commissioners City of Silverton Mayor and Town Trustees